

## Delta Regional Forum Summary



The first Delta Regional Forum was held on December 13, 2012, at the Antioch Community Center. Remote participation was available via webinar and conference call. Copies of the workshop presentations, handouts, and materials are available on the Water Plan website at [www.waterplan.water.ca.gov/materials](http://www.waterplan.water.ca.gov/materials).

### **OVERVIEW OF REGIONAL APPROACH**

Gary Lippner, Regional Coordinator for the California Department of Water Resources (DWR) North-Central Regional Office, provided a recap of the regional approach. The expanded approach is sponsored by DWR, in conjunction with local entities and organizations, to support regional integrated water management throughout the State. The effort builds on an earlier format used for the Water Plan, which involved regional workshops in each of the DWR hydrologic regions. The **new format** places greater emphasis on webinar and conference call technology, with shorter (about 3 hour duration) and more frequent meetings (occurring a few times a year). Mr. Lippner noted that additional background materials are available online at: [www.waterplan.water.ca.gov/regional/index.cfm](http://www.waterplan.water.ca.gov/regional/index.cfm).

Each Forum is being planned through a "**Design Team**" of **local interests and stakeholders**, to assure that the most relevant regional topics are addressed through the series of forums. Likely topics for the Forums will focus on water management programs, including Water Plan, IRWM, Statewide Flood Management and others. Other agencies, including local, State, Tribal and Federal programs, are welcome to contribute agenda items for upcoming Forums.

### **DISCUSSION ON WATER PLAN CONTENT FOR REGIONAL REPORTS**

The second presenter, Lew Moeller, Project Manager for Update 2013, provided on the approach for developing the Update 2013 Regional Reports. He noted that the Regional Reports first appeared in Update 2005 with the objective of providing accurate information on regional conditions efforts and priorities related to water management. The content was expanded in Update 2009 to include flood management and water quality. The current work will also expand content, with increased focus on describing unique regional and sub-regional aspects related to water management and planning.

Mr. Moeller then introduced the "story board" for the Regional Reports, where the information will address five major themes:

- The Current State of the Region
- Regional Resource Management Objectives
- Inter-Regional and Statewide Relationships
- Regional Water Management Strategies and Initiatives
- Regional Short- and Long-Term Recommendations

A working draft has been prepared for the Delta Regional Report, which was distributed in the room. The draft is also available online at [www.waterplan.water.ca.gov/materials](http://www.waterplan.water.ca.gov/materials) for the date of December 14, 2012 (see agenda item #9). A 2-page summary of key themes from each Regional Report will be provided in the Water Plan Highlights document. Copies of the 2009 Delta Regional Report were also distributed.

A collaboration website is also being developed to support access to draft materials, as well as dialog among stakeholders. The website is new and currently under construction. Documents have been uploaded regarding the Delta Regional Report. The documents can be viewed and

## Delta Regional Forum Summary



accessed by going to <https://dwrregionaloutreach.water.ca.gov/home>. Please note that it is not necessary to log-in to view the documents. In order to post comments or provide information, please contact Lew Moeller at [lmoeller@water.ca.gov](mailto:lmoeller@water.ca.gov) or 916-651-5666 to establish a user name and password. On-line registration will be available in the future. Also, a dedicated email address has been established for comments relating to the Tulare Lake Regional Report. Please send your comments or suggestions to: [bdrf@water.ca.gov](mailto:bdrf@water.ca.gov).

### **Discussion**

After hearing the presentation on the approach, content, and structure of the Regional Reports, Forum participants were asked to identify the essential aspects of the “water story” for the Delta area. Worksheets were available for those who wanted to submit detailed comments, including references, resources and specific information that should be included. The discussion points made by Forum participants consisted of the following comments:

#### **a. Scope**

- The Regional Report is different from other reports on the Delta, in that it presents information about what is going on – without taking sides. It does not advocate for what “should” or “could” happen.

#### **b. History of the Delta**

- The San Joaquin River used to be the largest flow of water into the Delta and that no longer exists – it has been shut down.
- In the 1800s, 57 islands were constructed, with consequences for today.
- Important role as a freshwater estuary and marsh and now faces significant saltwater intrusion
- Summarize investments made in Delta, consider discussion of cost-share

#### **c. Salinity**

- Urban sources (water conditioning, runoff)
- Tidal inflow from the Bay
- On Sherman Island, salinity all but prohibited agricultural activities and DWR bought most of the island – it now supports cattle grazing and feed crops.
- In the 1970s, DWR built a salt water control gate at Montezuma Slough to reduce impacts of salinity on riparian habitat.

#### **d. Levees/Flood**

- The maintenance and improvement of levees touch all aspects of the Delta – economy, agricultural production, water supply, public safety and recreation
- Infrastructure protection needs to consider future conditions: sea-level rise, earthquakes, flood events
- Discuss recovery costs (time and money) after flood events
- Talk about evacuation routes
- The face of recreation has changed. The levees weren’t constructed to stand up to the levels of recreation seen today. Wake boats require armoring of the levees.

## Delta Regional Forum Summary



### e. Recreation

- The lack of dredging activities impedes recreation business – recent and current management practices result in siltation where shallow areas are now inaccessible. Flows are not sufficient to flush the sediment out.

### f. Agriculture/Economy

- Agribusiness is displacing local agriculture. Who benefits from agricultural production? What are the local benefits? What are the environmental impacts?
- Agriculture produces jobs
- Two major shipping ports, tied to agriculture.

### g. Culture of the Delta

- Country and agricultural lifestyle
- The Delta is our home

### h. Invasive Species

- Water grass (is not invasive – but conditions are now support growth that is detrimental to operations in the Delta)
- Historic freshwater flows would reduce the range of saltwater invasive species

### i. Management Decisions/Data

- Is the Delta being managed for fun (recreation), food (agriculture) or habitat?
- It's not possible to make the Delta look like it used to
- Describe key conservation, mitigation and planning efforts in the Delta
- What are the optimal flows for the Delta? What are the implications for exports?
  - Determine first how much water is needed for the Delta
  - Information is available from:
    - Water Boards' Bay-Delta Plan
    - BDCP studies
    - Combined-Species 5 documents – NOAA, DFG, FWS, NMFS
- What are the proposed export volumes for the BDCP conveyance structures?
  - What are the impacts on salinity, wildlife, and those living in the Delta?
  - The fear is that the Delta will be drawn down to nothing.
  - What alternative approaches should be considered if the BDCP doesn't go forward as planned?
  - What is the need for conservation?

### j. Ecosystem/Restoration

- The Delta ecosystem supports the largest stopover area on the flyway
- The Delta produces salmon
- The Delta provides habitat for a wide range of plant, animal and aquatic species
- Provide a description of factors relating to fish kills
- Discuss the SJRPP and impacts on the Delta
- Performance measures should be identified for habitat restoration

## Delta Regional Forum Summary



### k. Legal/Statutory Aspects

- California Water Code (§12201-12202) states the need to provide salinity control and an adequate water supply for users of water in the Sacramento-San Joaquin Delta. This includes agricultural, industrial, urban and recreational uses.
- The State Water Project included considerations of unfair enrichment regarding large agricultural land owners. See transcript of interview with Harvey Banks at: [www.archive.org/stream/projectcaliwater00bankrich/projectcaliwater00bankrich\\_djvu.txt](http://www.archive.org/stream/projectcaliwater00bankrich/projectcaliwater00bankrich_djvu.txt)

### ***REGIONAL CONSIDERATIONS: What would you like the Delta to look like?***

Forum participants were asked to describe their vision for desired outcomes and future conditions in the Delta. Forum members could also highlight what they would like others (throughout the State) to know about the Delta. The conversation focused on key themes from the previous discussion (economy, environment, public safety, recreation and water quality).

#### Economy/Agriculture

- Delta agriculture is preserved and remains in production
- Maintain prime farmlands (discuss statewide conversion of farmland to habitat)
  - Keep lands in active economic production
  - Open space and agriculture (e.g. orchards) is recognized for habitat benefits
- Freshwater flows return and encourage economic investment (C & H sugar refinery was located here due to availability of freshwater)
  - Antioch held the second oldest riparian water rights can no longer pump water out of the San Joaquin River 24 hours a day.
  - The San Joaquin River is one of the 10 most polluted rivers in the United States (due to decreased flows)
- Revive small farms to serve local and regional populations

#### Environment/Habitat/Fisheries

- Native plant and tree species to provide habitat, especially for birds
- Increased fish abundance, increased waterfowl populations
  - decreased mortality (e.g. During 2011, 9 million fish salvaged at fish screens, only 3% survived; direct and indirect losses estimated at 100 million fish associated with Delta pumps – this includes listed species.)
  - increased viability
  - increase in quality and quantity of habitat
- Freshwater flows support the return of striped bass and salmon
- The Delta functions as a tidal freshwater estuary and provides breeding grounds for salmon
- Water quality and depths of flows enhance fishing opportunities

## Delta Regional Forum Summary



### Recreation

- Water quality improves
  - Pulse flows (conducted to manage salinity) change the groundwater tables and effects septic systems, which affects water quality and recreation
- Invasive species are managed (e.g. water hyacinth affects propellers)
- Effects of water diversion/water quality/fisheries infrastructure are minimized
  - Pipes and infrastructure create barriers to recreation
- Recreation areas are maintained
  - Marinas, campsites and parks are maintained
  - Well-placed fishing access
  - Well-placed public access (reduces trespass on private lands and levees)

### Public Safety

- Public access and fishing access reduces presence of recreation users and visitors on levees, agricultural areas or private lands
- Protect the primary zone from development (Delta Protection Act)
- Integrated emergency response systems are in place
  - Know who is charge to promote quick decisions

### Groundwater Quality

- Freshwater recharge occurs
- Groundwater supplies provide freshwater to agricultural and residential uses
  - Contra Costa Water District needed to move their water intake upriver (on Victoria Slough, Middle River) to obtain freshwater
  - Used for blending

### Public Awareness

- People across the state understand what the Delta was and is
  - Historic influence of fisheries on community development (canneries) in Antioch, Pittsburg and Martinez
  - Understand current issues
  - Local groups are working on education and awareness efforts
    - Friends of Marsh Creek
    - Dept. of Boating and Waterways is reaching out to boaters
    - California Wildfowl Association is working with landowners on habitat restoration
    - North Delta Conservancy has projects that they are implementing

## Delta Regional Forum Summary



### ***DELTA PLANNING EFFORTS***

#### Coalition to Support Delta Projects

Doug Brown, Coordinator for the Delta Counties Coalition, briefly described the origins of the coalition – which was formed to focus on near-term actions and projects in the Delta. The projects would need to be fundable, low-risk, locally supported, provide multiple benefits and implementable within the next 5-10 years. An ad-hoc group of diverse Delta interests reviewed two-age project descriptions over a five-month period. The resulting list of 43 Delta projects was not prioritized, nor was the support intended to reallocate existing pots of money. The list was sent to the Governor, attached to a cover letter signed by 37 thought leaders in the Delta.

The list of projects will be posted on the Forum materials webpage. It was mentioned that there are many items that can be supported by a wide range of interests.

#### San Joaquin Valley Partnership/Delta Counties Coalition Projects

Doug Brown explained that the five Delta counties include: Contra Costa, Sacramento, San Joaquin, Solano and Yolo. The Coalition was created in 2008 to provide a unified voice for the protection and preservation of the Delta and Delta communities. The SJVP was formed by Executive Order in 2005 and was comprised of eight counties (Fresno, Kern, Kings, Madera, San Joaquin, Stanislaus and Tulare). As an entity involved with both efforts, San Joaquin County encouraged collaboration between the two groups.

The two groups started working together in 2009 and created a joint Policy Committee and Technical Advisory Committee. The latter reviewed water projects within the (shared) 12-county area for consistency with joint water policy objectives. The resulting list of 18 consensus projects is being reviewed by the respective county Boards of Supervisors. Once the project list is adopted by all 12 member counties, the list will be posted online at: [www.sjvpartnership.org](http://www.sjvpartnership.org)

#### Delta Protection Commission: *Economic Sustainability Plan*

Mike Machado, Executive Director of the Delta Protection Commission, provided an overview of the Economic Sustainability Plan. He began by summarizing the different aspects characterizing the Delta: estuary, species diversity, communities, infrastructure crossroads and hub for much of California's water supply. The economic output was displayed according to sectors, with agriculture dominating the value provided by recreation and tourism – the Delta is a destination with a place, unless you have a boat.

Other key elements of economic sustainability include: levees; water quality, supply and flow; legacy communities; and ag-compatible habitat restoration. Restoration efforts need to increase the dialog with local landowners to identify strategies for reaching habitat objectives. Related input was provided to the Delta Stewardship Council for the *Delta Plan*, and the DPC is also coordinating with the Delta Conservancy. The full *Economic Sustainability Plan* is available online at [www.delta.ca.gov/Final\\_ESP\\_Jan\\_2012.htm](http://www.delta.ca.gov/Final_ESP_Jan_2012.htm)

In response to a question, Mr. Machado clarified that the Working Landscapes Program represents a separate effort by the DPC. Additional information can be found at [www.delta.ca.gov/landscapes.htm](http://www.delta.ca.gov/landscapes.htm), with an additional link to the Working Landscapes Report.



## Delta Regional Forum Summary



### Delta Stewardship Council: *Delta Plan*

Carl Lischeske, Lead Engineer for the Delta Stewardship Council, explained that the Delta Stewardship Council was created through the 2009 Delta Reform Act to produce a *Delta Plan* for achieving the co-equal goals of ecosystem protection and water supply reliable. Water supply goals will be supported by better water management, improved Delta conveyance and enhanced storage. Ecosystem enhancements include updating water quality objectives, protecting high-priority restoration areas, and working to reduce stressors. The Plan also enhances the Delta as place and seeks to reduce flood risks.

The final draft of the *Delta Plan* is posted online. Comments will be reviewed, with responses published in the Final Program EIR in the spring of 2013. The EIR will go before the Council for certification, and adoption of the *Delta Plan*. The subsequent rulemaking process is anticipated to conclude in the summer of 2013.

### Delta Conservancy

Campbell Ingram, Executive Office of the Delta Conservancy, noted that the agency was also created by the 2009 Delta Reform Act. The Conservancy serves as the primary state agency to implement ecosystem restoration in the Delta, while supporting environmental protection and the economic well-being of Delta residents. This role will involve working with the community in coordinating and integrating priorities. The Conservancy received 12 mandates that it must address. Three overarching objectives address: environmental restoration, preserving and protecting ag lands and working landscapes, and seeking to increase recreation.

The Conservancy was created in advance of securing the funding needed to support the work. The Water Bond has been postponed and is now slated for the 2014 ballot. There is currently budget for staff and outreach. Currently, the Conservancy is looking to bring information to communities, allowing them to better engage. Working with an array of both State and Federal agencies, the Conservancy developed a diagram to describe agency responsibilities associated with the 2009 Delta Reform Act. At a recent public forum, information was presented on: ecosystem restoration and levee work; how that fits within the larger framework of agency responsibilities; and how Delta community members can effectively engage and provide input.

### Central Valley Flood Protection Plan (CVFPP) Regional Flood Planning

Michael Mierzwa, Advisor on Integrated Water Managed, summarized State Levee Investments in the Delta. He observed that levees represent a wide range of conditions and functions, which must be factored into management decisions – for both today and the future. A map displayed Delta levees, include project levees representing the State Plan of Flood Control (SPFC). Three State programs look at planning for levee investments: Delta Subventions (for non-SPFC levees), Delta Special Projects (any levees) and the CVFPP for SPFC levees.

Looking at the \$14-\$17 billion of investment needed for SPFC levees (valley-wide), two efforts are underway for improving the entire system: basin-wide feasibility studies and regional flood planning. The regional element has been organized into 6 areas, where locals are engaged in developing a governance system, identifying priorities and looking at financing strategies. To be involved, contact your local maintaining agencies (reclamation districts). One of the Forum participants noted that FEMA and remapping activities will have community impacts, as well as changes in the National Flood Insurance Program.

## Delta Regional Forum Summary



### Water Boards' Basin Plan Amendments

Karen Niiya, Senior Engineer with the State Water Boards, recapped that the agency is part of CalEPA with responsibilities for water quality. Oversight is through Basin Plans (developed by the Regional Boards for hydrologic areas) and Water Quality Control Plans (developed by the State Board for areas with statewide importance). The *Bay-Delta Plan* is the Basin Plan for the Delta and includes flow-related objectives, which are implemented through water rights.

A brief history of Water Boards Bay-Delta planning was provided, extending back to 1960. The Bay-Delta Plan was adopted in 1995 and implemented in 2006; the Bay-Delta Plan was revised in 2006. The current program is conducting a programmatic review of San Joaquin River flow and southern Delta water quality requirements (Phase I), followed by a review of Delta inflows/outflows and operational requirements (Phase II). Phase III focuses on implementation of the revised *Bay-Delta Plan*, and Phase IV will develop and implement instream flow requirements for priority Delta tributaries. A phase timeline was provided.

### **UPDATES ON RELATED ACTIVITIES**

#### State and Federal Contractors Water Agency (SFCWA) Habitat Projects

Jason Peltier, Westlands Water District, spoke on behalf of the State and Federal Contractors Water Agency. The Agency has permit requirements for 8,000 acres of tidal wetlands and 17,000 acres of seasonal salmon habitat. SFCWA is currently working on three habitat projects, where they are coordinating with county, state and federal entities:

- Yolo Ranch, consisting of 2,000 acres, was purchased for creation of inter-tidal habitat. After two years of planning, this is in the permitting process and groundbreaking will commence next year. The project will remove 1.5 million yards of sediments to allow tidal inflow, and sediments could perhaps be used to support other local projects.
- Tule Red, on Grizzly Bay, will restore tidal function through tidal channels connecting to the bay. This will occur at a site previously used as a private duck club. With both projects, it is essential to work with the community and minimize impacts to neighbors.
- McCormack Williams is a project that the USACE and Nature Conservancy have been working on. SFCWA was asked to engage in this effort which provides flood and habitat benefits. This project will notch the levee to allow water in.

An economic assessment was conducted for Yolo Ranch (which represents irrigated pasture), looking at jobs and economic impacts. The results indicate a projected cumulative economic benefit of \$25 - \$35 million over a 50-year period. Restoration design criteria were developed with assistance from consultants.

#### Fish Restoration Program Agreement (FRPA)

Dan Riordan, DWR, explained that Biological Opinions from USFWS and NMFS require an increase of 8,000 acres of inter-tidal and sub-tidal habitat, as well as 17,000 acres of seasonal floodplain rearing habitat. Similarly, the DFG incidental take permit requires 800 acres of inter- and sub-tidal wetland habitat, which will comprise part of the larger 8,000 acre requirement. FRPA seeks to identify and implement actions to satisfy these requirements, through a public and transparent inter-agency planning process that coordinates with other related large-scale planning efforts. A stakeholder outreach effort is underway, developed in conjunction with the Delta Conservancy, which held a public meeting in November.



## Delta Regional Forum Summary



The habitat restoration activities are aimed at enhancing food production and availability, and the pelagic food web, as well as increasing the amount and quality of habitat and increasing survival of migrating salmonids. These activities are described in the Implementation Strategy which was released in April of 2012. Other elements of the Implementation Strategy address: monitoring and reporting, adaptive management and post-project maintenance. The document is online at: [www.water.ca.gov/environmentalservices/docs/frpa/implementation\\_strategy.pdf](http://www.water.ca.gov/environmentalservices/docs/frpa/implementation_strategy.pdf). Mr. Riordan noted that the program works with willing sellers in obtaining the 8,000 acres needed for restoration. A map illustrated locations of near-term actions for FRPA projects.

Initially, the proposed projects included an action for breaching the ship-channel side of the levee. The original 30 alternatives were reviewed and reduced to 15 actions. The review team is finalizing a report to select 5 alternatives that will move forward to Phase 2 modeling. Some include breaches on the ship channel. There will be 1- 4 breaches around Prospect Island. The timeframe for putting the 8,000 acres of habitat into place is 10 years. The agencies have not yet established when that 10-year period begins.

A Forum participant remarked that the Biological Opinions address both habitat restoration and water operation requirements. Those operational requirements are not well-defined, and are often mentioned with references to “X-2” and operating restrictions. General readers will not understand that X-2 refers to the salinity-freshwater blend, and there are not explanations about what the restrictions are.

### Bay-Delta Conservation Plan

Scott Woodland, DWR, provided an update on the BDCP process which is currently focusing on the HCP/NCCP Application and the EIR/EIS. The BDCP represents a 50-year plan involving several different components: new conveyance; 113,000 acres of restored habitat (including setback levees and inter-tidal habitat); and monitoring and adaptive management. The BDCP is increasing its coordination with other large-scale planning efforts. Some of the current habitat projects will fold into the BDCP targets.

The conveyance proposal encompasses three intakes (combined capacity of 9,000 cfs) using fish screens, an intermediate forebay and two gravity flow tunnels (35 miles long) to deliver water to the South Delta pumping facilities. This is a regulated system and would not be pumping 9,000 cfs on a constant basis. An example, using flows at Freeport is provided here:

- With flows below 5000 cfs, there would be no pumping.
- From 5000 cfs to 9000 cfs, diversions could vary from 0 up to 540 cfs. As a dry year example (Jan 2009) with Freeport flows at 6,400 cfs, the maximum diversion would be 384 cfs.
- For river flows up to 15,000 cfs, between 900 and 3000 cfs could be diverted.
- A diversion of 9,000 cfs wouldn't be reached under the PROPOSED operations until in river flows reach at least 30,500+ cfs.

Fisheries agencies and the State Water Board will have to review, comment and possibly change the proposed flow limits prior to project implementation.

With the dual-conveyance arrangement, the new North Delta intakes would serve as the primary diversion point. The Draft EIR/EIS and Draft Plan is scheduled for released in late spring 2013, with final documents projected for December 2013.

## Delta Regional Forum Summary



In response to a question, Mr. Woodland expressed that costs for the project will be in the billions. Much of the cost for the conveyance tunnels will be paid by the water contractors and, ultimately, by water users in the San Joaquin Valley and Southern California. Habitat benefits will have contributions by taxpayers.

A Forum participant noted that habitat improvements benefit the water exporters by providing mitigation for take – and it's not clear how conversion of ag land to habitat benefits those in the Delta. Benefits are accruing to others in the state, and using Delta lands in the process. Habitat requirements are substantially reduced if the BDCP conveyance project does not proceed.

It was noted that the BDCP Finance Workgroup is looking at a full cost-benefit analysis, where public participation is encouraged to help inform the assumptions that should feed into that analysis. There was a question as to whether the lawsuits by landowners will be part of the economic analysis – and it was suggested that the question needs to be directed to the Finance Workgroup. Mike Mierzwa noted that the financing approach starts at the high-level, showing what actions will result from the investment – later there is an analysis of specific funding allocations and mechanisms.

One question inquired how flow standards and water quality requirements will be incorporated into the process. Scott Woodland replied that flow standards and water quality will be incorporated into the operations of the facility through the permitting process required under CEQA and NEPA. Permits to operate will need to be obtained from the Fisheries agencies and the State Water Boards. The effects on fisheries and water quality were considerations in reducing the proposed project's diversion capacity from 15,000 cfs to 9,000 cfs. It was noted that the diameter of the tunnels have remained unchanged, even though cfs capacity has been reduced, to support gravity flow and thereby reduce energy requirements. The presence of two tunnels, rather than one larger tunnel, provides redundancy and resiliency.

There was a question as to why advanced fish screens are not being put into service at the Clifton Forebay. It was noted that the ecosystems in the two locations are different, with tidal influences that capture fish against the screens. There may also be the need to revisit additional fish passages in the existing infrastructure.

Another question asked about the impact of flow to the Sacramento, below the diversion point for the 9,000 cfs transfer. Mr. Mierzwa spoke about two flow factors: outflow and through-Delta flow. With the diversion, there will be less transfer flows coming out. Any new infrastructure will require a discussion of operations (including reservoirs and rivers) including new calculations for carriage water, to reach desired flow and salinity levels. The level of reduced flows will depend on the operational requirements. Early salinity records for the Delta are based on fuel costs related to going further up the Napa and, during extreme drought, up the Sacramento River to obtain freshwater supplies for operation of the C&H sugar refinery.

The temperature and flow regimes have tended to reduce variation in the Delta, for flows and water quality. System operations balance objectives for supply and environmental benefits. For example, the cross-channel gates have been operated for fish passage and salinity levels, which are in conflict at times. These operations will be further complicated by climate change.

### Climate Change Handbook

Erin Chappell, DWR, recapped the efforts to date of the Climate Change program, which has been in place for the last few years. Comprised of managers, scientists, engineers and support

## Delta Regional Forum Summary



staff, the team develops guidance on addressing climate change and greenhouse gases – and conducts outreach and provides technical assistance.

Over the past 100 years, in California there has been an average of 1 °F temperature rise where minimum temperatures are rising more quickly than maximum temperatures. There is also a 10% snowpack reduction, with changes in timing of runoff and precipitation, as well as a 7” rise in mean sea level at Golden Gate. Additional changes are anticipated over the next 40 years.

Climate is being incorporated throughout the Water Plan in:

- Regional Reports – appropriate adaptation strategies
- Future Climate Scenarios
- Resource Management Strategies and Statewide Strategies.

The Climate Change Handbook for Water Planning provides guidance and tools for water managers. Developed in conjunction with USEPA and USACE, the handbook synthesizes existing information to assist water planning efforts in accounting for climate change. The approaches are designed to support IRWM planning. These are provided as guidelines for use by local efforts, as appropriate. The handbook is posted online at:

[www.water.ca.gov/climatechange/CCHandbook](http://www.water.ca.gov/climatechange/CCHandbook). The Climate Change website also has a link for “local and regional resources” tab which provides additional information. Ms. Chappell noted that DWR has adopted a GHG reduction plan for its activities.

### ***DRAFT REGIONAL REPORT***

Kristal Davis-Fadtke, Delta Conservancy, has been working with DWR to create a working draft of the Delta Regional Report. The document represents a compilation of information from various sources and has not been edited or checked for consistency. The Regional Reports for the overlay areas (Delta and Mountain Counties) have a different outline from those for the hydrologic regions. The 2013 report is also different from the Update 2009 report – the focus is on new planning efforts in the Delta, framing multiple issues and looking at how they are being addressed. The goal is to accurately reflect the characteristics of the Delta, and to capture major issues. The Forum concluded with time for networking and discussions regarding the report.

### ***PARTICIPATION***

Alan Bargman, Discovery Bay  
Ken Crockett, Diablo Water District  
Cathy Case, Golden West Women Flyfishers, Ca. Striped Bass Assn.  
Roger Mammon, Restore the Bay, California Striped Bass Assn.  
Karen Meddars, Delta advocate  
Michael O'Hagan, HNTB  
Jason Peltier, Westlands Water District  
Kay Power, Kiwanis Club, Sportsmen Yacht Club  
Linda Soliven, League of Women Voters, California Water Committee  
Melinda Terry, North Delta Water Agency  
Jane Wagner-Tyack, Restore the Delta  
JB Wessman, Diablo Springs

#### Presenters

Doug Brown, Delta Counties Coalition  
Erin Chappell, DWR, North-Central Region Office, Climate Change

## Delta Regional Forum Summary



Campbell Ingram, Delta Conservancy  
Carl Lischeske, Delta Stewardship Council  
Mike Machado, Delta Protection Commission  
Michael Mierzwa, DWR, Division of Integrated Water Management  
Karen Niiya, Water Boards  
Dan Riordan, DWR, Bay-Delta Monitoring and Analysis  
Scott Woodland, DWR, Regional Coordination Program

### Staff and Support

Kristal Davis-Fadtke, Delta Conservancy  
Kristen Honeycutt, DWR, North-Central Region Office  
Eric Hong, DWR, Chief, North-Central Region Office  
Gary Lippner, DWR Regional Coordinator, North-Central Region Office  
Lewis Moeller, DWR, Project Manager, Update 2013  
Laura Peters, DWR, IRWM Program  
Judie Talbot, CCP-CSUS, Facilitator

### Via webinar:

Jim Atherstone, So. SJ Irrigation District  
Bill Darcie, Kjeldsen, Sinnock, Neudeck  
Greg Gartrell, Contra Costa Water District  
Nate Hershey, MBK Engineers

### Via Webinar, cont'd.

Satinder Malhi, State Senator Mark DeSaulnier's Office  
Selby Mohr, Sacramento Municipal Utility District  
Brandon Nakagawa, San Joaquin County DPW  
Tim Mussen, Sacramento County Regional Sanitation District  
Iris Obregon, State Assembly Joan Buchanan's office  
Sonnet Rodrigues, RD 800  
Don Thomas, Sacramento County Dept. Water Resources  
Alex Westhoff, Delta Protection Commission  
Betty Yee, Central Valley Water Board